



Key to iCerMax™ filtration philosophy is sustainable filtration at all times, sustainable cleanliness levels and cost effectivity!

Our motto: we will break your pump, but iCerMax™ ensure sustainable cleanliness levels. This is totally obtainable by the iSo-SpecSure™ filtration principles and they have been extensively tested in the various field case studies on the worst fuels.

All our products/brands are generic to iCerMax™ and work on our own design filtration principle, that is why most other filtration brands sell from our product range. iCerMax™ proprietary range being:

iSo-SpecSure™ - addresses particle contamination

iAqua-Max™ - addresses water contamination (free and suspended)

Duo-AquaTrap™ - on-board particle and water filter

iCustodian™ - fuel theft protection

iSo-SpecSure bag™ - revolutionary new concept in market place, particle contamination in filtration bag housings to iSo-Levels by utilising various filtration mediums in one bag housing. Lower downstream filtration costs, which allow total flexibility on filtration vessels, customised to clients' needs

iCerMax™ above products are trademarked and patented. info www.icermax.com

We can also ensure that even the worst African fuel is suitable for your equipment and maintained cleanliness levels in "standing fuel" in tanks.

We have been the tender specified supplier for the last TELKOM tenders on all day Tanks.

Our custom kidney units filter between 67 lpm -150 lpm, this allows for tank agitation.

iCerMax removes:

Suspended and free water - with iAquaMax™ product range. Particle contamination with Sustainable iSo-level, iSo-SpecSure™ product range

iCerMax™ supply complete plug and play kits:

-State of the art Schneider control box -pumps zone 2 where required -various flow rates -stands and the complete filtration skid - Various combinations are custom made to clients specifications

Our on board filter, the Duo-AquaTrap™ is also used as a suction filter on genset, just before the OEM filters to remove suspended water and to act as a pre particle filter

More info on our website www.icermax.com and my LinkedIn account Andre Steyn@ icermax for case studies.

iCerMax™ has a full range of diesel products to address all the following filtration market needs.
(Any flow rates, required cleanliness levels to ISO standards & water removal)

Dispensing & receiving

Tank Transfers

Tank cleaning

Kidney filtration

Mobile trailers/fuel bowser tankers etc.

All filtration Systems required above are available in Modular system skids, which will address all the above combinations, and are totally adaptable to clients own filtration cleanliness requirements.

This ensures:

-Ease of compliance with each individual site requirement/specifications

-Plug and play ensure, low cost easy installations, with total flexibility to modify or upscale installations, as customer needs change.

-Mobility

-Maintenance is simple and highly affordable, therefore allowing a lower cost per litre filtered.

-Sustainable cleanliness levels, totally achievable to ensure OEM warranties are upheld

iSo-SpecSure™ Bulk filter cartridges -Multi mediums filters for fuel filtration vessels

Each cartridge is designed with multi filtration mediums and layers.

iCerMax™ Proprietary and patented filters

- Multi bag filter layers of various micron ratings for pre-filtration loading
- Cellulose paper – pre-filtration and dirt loading
- Multi layered synthetic mediums of various micron ratings
- Multi support mediums and layers throughout the cartridge



iSo-SpecSure™ bulk tank filter cartridges - multi medium, multi-layer and multi medium support.

Custom made to clients requirements and specifications to fit in client's current filtration vessels.

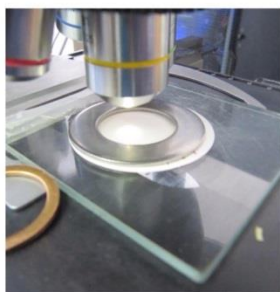
- iSo-SpecSure™ quality
- Ensured higher sustainable cleanliness levels
- High dirt holding capacity
- High filtration medium integrity
- Low differential pressure
- Install into current bulk tank filter housings
- Water addressed with iAquaMax™ range

Bulk tank iSo-SpecSure™ cut thru of used multi medium filtration layer, ensure efficiency and sustainable filtration



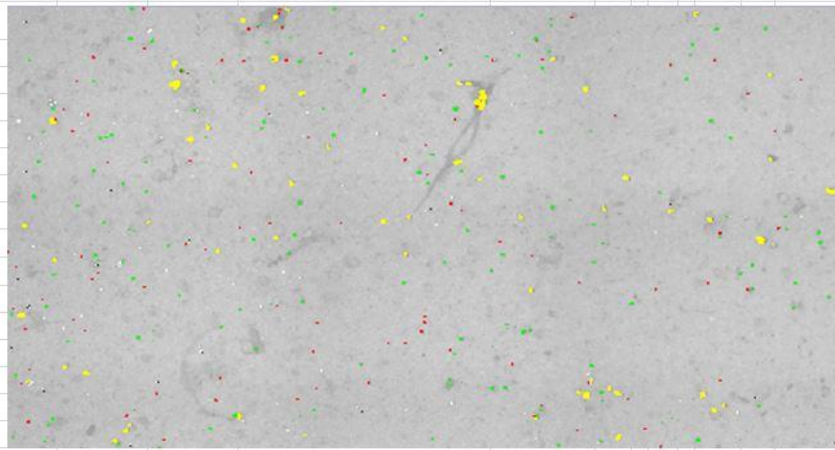
The “Cummins patch test” as performed by YelloTec technical services

Test results below from Anglo Coal, high volume, high flow, multi stage filtration site. The filling of haul trucks as per the installation case study below, over three years. ISO levels delivered inbound averaged at: ISO 20 levels.



Measure Results	
Object Class	Object Count [#]
4-6 Micron	1374
6-14 Micron	993
>14 Micron	143
	3

Calculated Particle Count	ISO 4406	15	14	13
> 4 μ	25828			
> 6 μ	15221			
> 14 μ	5091			



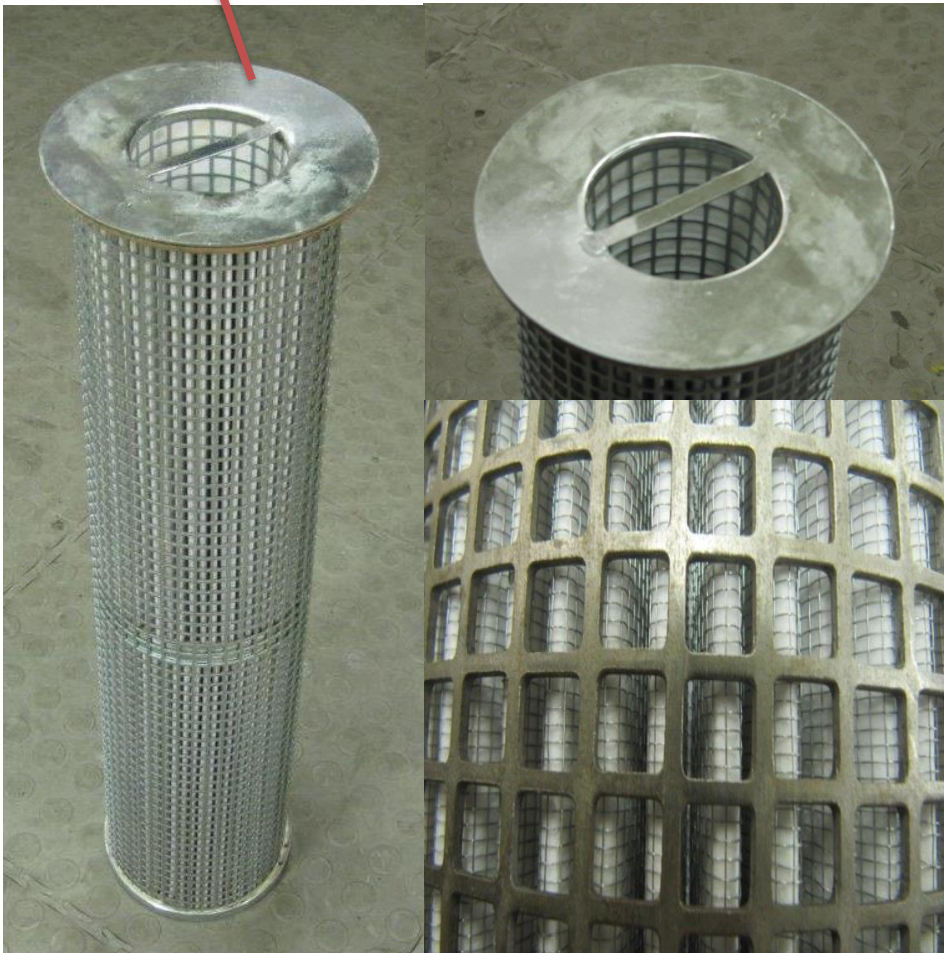
iSo-SpecSure™ Multi medium bag filters (NEW concept in the Market place)

–ideal for pre-filtration to lower downstream filtration costs. Especially, where maintenance costs are sky rocketing due to the frequent replacement of costly spin-on filters used in bulk tank applications. Spin-on filters inherently have capacity and efficiency issues due to



differential pressures on a small filtration surface area which is exacerbated by their easy medium compromise and vibration of the medium

All in one revolutionary proprietary filter from **iCerMax™ patented**



iSo-SpecSure™ Bag filters - multi mediums, multi layers and multi medium supports.

- Based on own design – therefore iSo-SpecSure™ quality
- Three different filtration mediums in one filter ensuring adherence to multi depth filtration principles
 - Bag filter layers, various micron ratings
 - Cellulose medium
 - Multi Depth synthetic layers –various micron ratings
 - Multi internal structural supports and media support layers
- Ensured higher sustainable cleanliness levels
- High filtration medium integrity
- Low differential pressure
- Install into current bag filter housings
- Design filter banks to handle any flow rates
- Use inside tanktainers
- Substantially lowered filtration costs per litre
- Higher dirt holding capacity and efficiency than polypropylene bags
- Water addressed with iAquaMax™ range

Or simply use in basic installations inside bag filters housings. Highly effective particle and water filtration solution in one easy installation skid. Plug & Play.



Angola on kerbside pump



Anglo American workshop



Stefanutti Stocks Road and earth works

iCerMax™ improves on virtually any market cartridges - we don't copy, we improve functionality and efficiency to ensure quality and manufacture only to the iSo-SpecSure™ principles.

Northern Cape: “an ultra-test for true diesel filtration capability!”



Due to massive amounts of ultra-small dirt particles and temperature extremes that result in clogging and compromising filters quickly, a true challenge to any filtration medium exists. iCerMaxTM have several sites running our system for years in this area, with sustainable ISO-levels utilising our iSo-SpecSureTM filtration medium; with low cost maintenance lasting several months before service intervals.

Our competitors can't keep up with “the changing out of cartridges”, a very costly solution that results in sporadic iSo-cleanliness levels or totally compromised basic filtration mediums.

iAquaMaxTM is also removing suspended water, the single biggest cause for common rail injector failure, a problem in this area due to extreme temperature changes.

High volume, multi stage Diesel filtration system on a Anglo Coal mine: delivering sustainable iSo-cleanliness levels



Easy to install, module based and a multi stage filtration system that addresses contamination in diesel on an affordable, as well as reliable methodology that is easy to maintain and allows for long service intervals. The above mine has since installation, lowered their breakdowns and more importantly OEM related failure /warranty claims, as the mine has sustainable diesel iSo-levels that it can prove and/or substantiate, when reporting OEM failures.

Suspended water is addressed by iAquaMaxTM and particles contamination by iSo-SpecSureTM resulting in superior sustainable cleanliness levels.

The iCerMaxTM see through water trap acts as a “permanent police man” which indicates the presence of undesirable substances and allows for constant visual inspection of the diesel quality being delivered by the fuel supplier.

Bulk filtration – iAquaMaxTM & iSo-SpecSureTM

Replaced “World leading expensive” brand on South 32 /BHP Billiton Sites –iAquaMaxTM

Telkom official kidney gensec tender and installed on key sites

Sasol usage in the Refinery - iAquaMaxTM

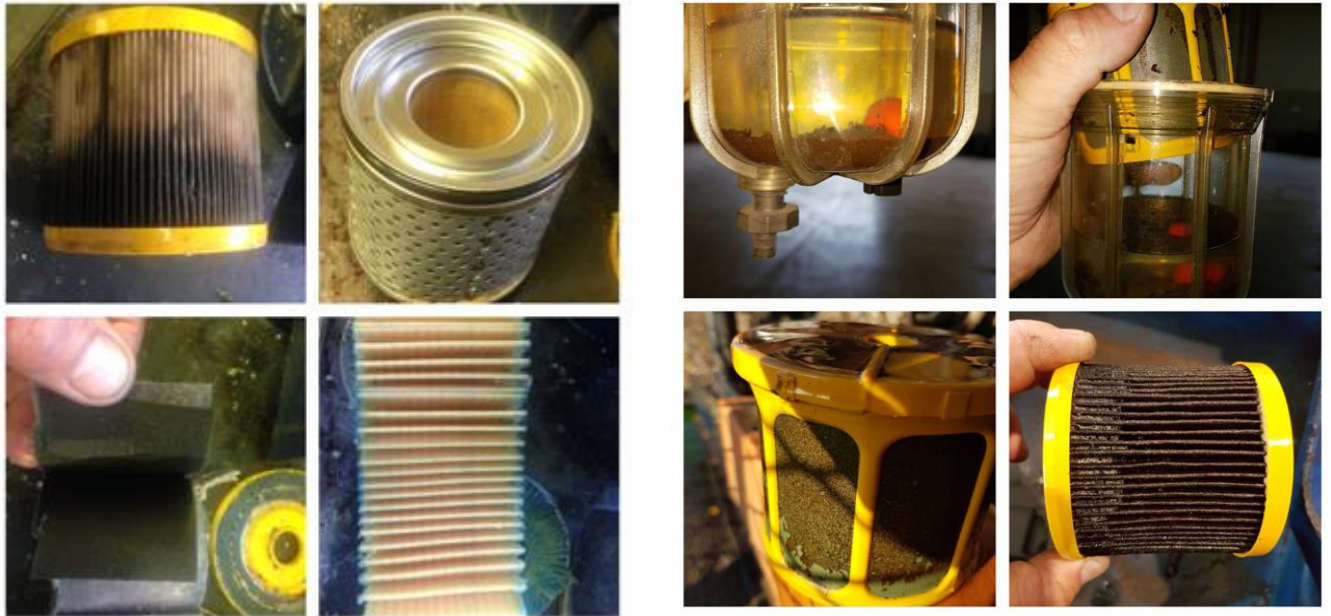
Inbound and outbound filtration for oil distributors and company depots.

Delivering iSo-15 levels on Northern Cape diamond mines on a basic filtration system

Anglo bulk site on a coal mine delivering iSo-15>, sustainably at the lowest cost per litre!

Various mining, contractors, transport, farming sites – all over the African continent.

Field testing in actual real live conditions, not in controlled labatory conditions, done by clients of iCerMaxTM on the Duo-AquaTrapTM on-board filters. Using iSo-SpecSureTM sub-micron cartridges



Left

700 hours as pre-filter, sub-micron (iSo-SpecSureTM) Duo-AquaTrapTM diesel filter, with synthetic multi-layer mediums , OEM filter did not even change colour on right

Right

Who said one can't have capacity and efficiency in a multi layered depth synthetic filter (iSo-SpecSureTM) .it's all in the design. 1000 hours pre-filter sub –micron filtration in harsh environment with double suspended water protection

Saving Kingsley Beverages from major production losses and injector failures on a critical fleet of forklifts that occurred on ONE bad fuel delivery!

Kingsley Beverages in Malvern had a delivery of disastrously contaminated fuel mostly laced with water, from their long time fuel supplier.

This could have resulted in a complete production disaster on the production line, as forklifts are crucial in ensuring the inbound and outbound logistics on the running production line.

Fortunately the entire fleet of 19 Forklifts were fitted with Duo-Aqua-Trap™ filters.

iCerMax™ saved the day, allowing the insipid fuel to have minimal impact on production, however, had a normal OEM filter been fitted, it would simply have not been able to handle the pure volume of free and suspended water. With the sensitivity of common rail injector systems, particularly to water in suspension, this would have undoubtedly had a disastrous result in production losses and major repair bills on equipment with the added costs of hire/replacement charges for stand in forklifts.

In the photo Jakes is pumping the diesel from the tank of a Kingsley bakkie that was unfortunately also filled with this delivery of fuel. He is using an iCerMax™ Duo-AquaTrap™ as a funnel to separate the water from the diesel, being pump from the tank so as to demonstrate the harsh fuel quality that allowed the bakkie to only drive 1,8 km after being filled before the OEM filters failed, resulting in a costly breakdown. The bakkie is now also fitted with a Duo-AquaTrap™ so as to save all the



unnecessary expenses, which simply could have been avoided.

With an ineffective filter system being used on the bulk tank, during this fiasco, Kingsley Beverages have now installed iCerMax™ bulk filtration filters on their bulk tanks.

iAquaMax™ is fitted with our iCerMax™ “trademark” visual inspection glass, to monitor the quality of all fuel deliveries and instantly indicate the presence of water or dubious fuels delivered – the ideal police man on any batch of fuel delivered.

Don't take the risk and compromise your costly equipment's lifespan, choose the filtration option that won't let you down, no matter the crisis - iCerMax™

Water in fuel is similar to paying car insurance, when you need it, you wish you had the best, iAquaMaxTM

Number one reason for engine failure in Africa is suspended water. Far more than particle contamination on the modern engine injectors. But most sites have totally inadequate filtration on bulk tanks, mobile tanks and on equipment.

In Africa it is common that fuels from suppliers are sometime innovative mixtures. It is becoming important to fit functional kidney systems on generator tanks to circulate fuel constantly and filter out particle and water contamination. Same principle as cleaning swimming pools. We don't do the normal spin-on type filters but specialised functional filters.

iAquaMaxTM - Human nature in diesel, Orange juice or amber diesel are becoming more common in market place. This is the deliberate mixing of a small volume 2-4% of water to diesel with additives, to ensure the water stays in suspension. Lucrative as water is sold for fuel price.

Water, especially suspended water in diesel, is the single biggest direct cause of common rail injector failure.



Diesel delivered by promenade fuel distributor

Diesel sample from branded forecourt garage in Germiston

Both these samples are pure poison for high pressure injectors, as it contains suspended water that will not separate, due to special human nature creative mixtures. These fuel mixtures have the ability to pass through normal paper cellulose mediums, or simply compromise the mediums and inflict serious harm to an entire fleet of equipment. Scary this is becoming more prevalent in the market place due to the profitability to sell water, as diesel. iAquaMaxTM detects and removes, as indicated by the photos.

Massive water removal capacity and efficiency – ideal for tank cleaning

iCerMax™ removed over 700ltr of water from diesel on a compromised 23000ltr tank at Imperial – Alrode after the rains, and the iAquaMax™ filter was still fully functional! The see through water trap, acts as a “permanent police man”, which indicates the presence of undesirable substances and allows for constant visual inspection of the diesel quality

iAquaMax™ removes suspended water sustainably, as the filter media is not affected, nor damaged by even 100 % water conditions. Competitors Paper mediums or depth synthetics have limited effective coalescing lifecycles ability due to media compromise to free water and particle dirt captured on the filtration medium ,thus negatively effecting coalescing abilities , as well as inherent medium capability limitations. Absorption media cartridges have low holding capacity, which becomes only a flow restriction.

Bulk tank cleaning of main tanks and cleaning tank transfers of diesel, made easy and affordable, with obtaining iSo-level cleanliness levels utilising iAquaMax™ and multi-layered bag filters, no expensive spin-on cartridges nor any other cartridges.



iAquaMax™ due to its ability to separate suspended and free water, ideal for diesel tank cleaning and diesel transfers

Removing suspended and free water from diesel in large volumes is problematic, with most market water removing filtering offerings, which mainly do the easy half of removing free water (the visible water) and are highly ineffective or capacity limiting in removing the modern injector killer, suspended water. To remove mass amounts of suspended water is virtually an impossible task with

spin-on filters due to capacity limitations and paper coalescing medium compromises. iCerMax™ proprietary filter range, iAquaMax™, this task is child's play. Whether it be tank cleaning, kidney systems for genset's, mobile trailers or simple bulk tank dispensing. Number one reason for engine failure in Africa is suspended water in diesel, far more than particle contamination on the modern common rail engine. But most sites have total inadequate filtration on bulk tanks, mobile tanks and on equipment. Remember water in diesel is similar to car insurance, when you need it, you wish you had the best. – iAquaMax™ and Duo-AquaTrap™

Water, especially Suspended water is the number one single cause of injector failure on modern common rail injector. iAqua-Max™ removes suspended water on single pass. (without efficiency drop in filtration medium)



iCerMax™ removed over 700ltr of water from diesel on a compromised 23000ltr tank at Imperial – Alrode after the rains, and the iAquaMax™ filter was still fully functional! The see through water trap, acts as a “permanent police man” which indicates the presence of undesirable substances and allows for constant visual inspection of the diesel quality.

iAquaMax™ removes suspended water sustainably, as the filter media is not affected, nor damaged by even 100 % water conditions. Competitors Paper mediums have limited effective coalescing lifecycles, as well as limited absorption media and low holding capacity, which becomes a flow restriction.

iAquaMax™ systems are suitable for bulk tanks and Duo-AquaTrap™ are best used on mobile equipment.

Kidney filtration systems are under used & misunderstood in filtration; yet offer functional and cost effective solutions to avoided future costly failures to equipment and production losses! Solutions are found through iCerMax™



iCerMax™ has a wide range of kidney cleaning systems to address any size bulk tanks, day tanks, fuel transfers or on-board equipment tanks during servicing of trucks.

Systems are available to be suitable for minor filtration right up to 500 litres per minute systems, which may be manual or fully automated.

Tanks over a period of time accumulate contamination (particles and water) on the bottom of the tank. As the tank pick up is not on the bottom of the tank, the contamination accumulates until it reaches a crucial level and then the on-board equipment filters are simply overwhelmed by the sheer volume of contamination, leading to filtration medium compromise and this has direct catastrophic results on the common rail injector system.

iCerMax™ systems are designed to handle the vast amount of particle sludge and suspended/ free water on a cost effective as well as easily operated kidney system.

iCerMax™ **DOES NOT** utilise spin –on or cartridge filters as they have a very limited dirt holding capacity and are compromised rather early by water in the cleaning process. If a cartridge system is being used the actual cleaning levels achieved is questionable, as the filtration mediums are quickly compromised, due to shear volumes of contamination, which require frequent change out of cartridges, making it an ineffective, time consuming, costly exercise. If the filtration medium is compromised, contamination passes through the filter and the system does not indicate the presence of contaminant and that the filter requires a change out. This phenomenon is also found in bulk tank filtration where spin-on filters are used.

iCerMax™ utilises our iAquaMax™ proprietary water removal technology (removes free and suspended water) and iCerMax™ proprietary designed bag filters to achieve the required cleanliness levels in “iSo” standards, without medium compromise. The required cleanliness levels are attained, at a unsurpassed low cost per litre, as iCerMax™ filter bags are cost effective at a fraction of the cost when compared to traditional spin-on technology or filter cartridges.

iCerMax™ Kidney systems are breaking away from the norm and pioneering towards greater cleanliness levels unrivalled by the old school thinking of filtration, all this whilst remaining economically viable to the consumer.

Generators: “whether they have day tanks or bulk tanks, ensure that the power stays on with iCerMax™ Filtration”



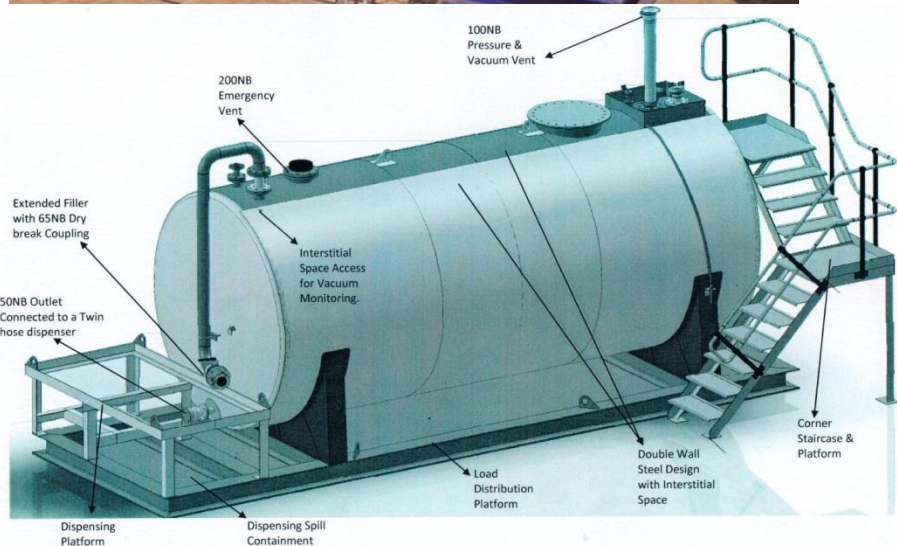
iCerMax™ is becoming the standard in diesel filtration efficiency, by ensuring generator diesel stays free of water and particle contamination, as well as remaining in pristine condition for prolonged periods.

This ensures the power stays on..... At all times.

Telkom SA just installed another iCerMax™ filtration system (with MasterPower) at the main generator switch of Rosebank. Tender specifications, prescribed that only iCerMax™ units are to be used. The iSo- SpecSure™ for particle filtration and iAquaMax™ for suspended water removal both combine to form the basis of iCerMax™ proprietor products.

iCerMax™ Kidney filtration systems, which demonstrate a further application of the filtration systems, are ideal on day tanks or bulk tanks, where diesel is stagnant or in highly contaminated areas.

Full site Fuelling solution, mobile & functional, with proper sustainable filtration



- Double wall steel design from 4.5 to 46 cubic meter tanks.-
- Single wall tanks from 4.5 to 83 cubic meters.
- All the top amenities you could desire.
- Dispensing platform for spill containment, also equipped with a pump, meter and effective filtration. (Custom or standard options)
- Optional filtration kidney system, polishing fuel cleanliness constantly in the tank.
- Available in all Tank sizes.
- Custom builds tanks that ensure filtration requirements to client's specification.
- Easily installed and locatable.
- Delivery anywhere in Southern Africa.



Mobile Bowser -1000/1500/2000/2500/3000 ltr

The mobile trailer is custom designed to enhance the cleanliness levels of fuels, due to the various combinations of our own proprietary filtration range:



iCerMax™ proprietary filters :

- iSo-SpecSure™ - iCerMax™ Particle filters
- iAquaMax™- iCerMax™ water filters
- Bag filter range – iCerMax™ custom range, multi layers remove mass dirt economically

See: www.iCerMax.com for details

Cleanliness levels are ensured at all times and to the client's specification

The trailer is functional, easily maintained and economical as it does not require the constant changing of cartridges or small strainers that block constantly. It stops unlimited superfluous use which usually arises from the use of inferior under –sized filters or incorrect filtration combinations.

The trailer owes its design to our years of experience in building strong, multi-functional trailers with the emphasis on road holding stability whilst still being functional in a rough terrain.

iCerMax™ filtration systems are 100% proprietary filters which are both functional and practical offering iSo-cleanliness levels. Our market leading filtration systems remove suspended water and are highly cost effective.

Transfer of fuels/ fluids and clean fuel/ fluids in the same operation

Our trailers are unique and possess attributes not commonly found in the market place, i.e. nozzle dirt protection, silica desiccant air breathers, fuel theft protection, extra strong construction.

All our products/ brands are unique and work on our own designed filtration principles that is why most other filtration brands sell our product range, especially our bulk tank filtration units.

We can ensure that even the worst African fuels are suitable for your equipment and we maintain cleanliness levels in "standing fuel" in your tanks.

There is no shortage of filtration “Brands” in this world; most are designed in “first World countries” to operate in fairly “clean fuel “environments and are based on cost , therefore inadequate internal functional design (usually only one filtration medium used) with lacking internal filtration medium support. This is why diesel in Nigeria is dreaded as the filters readily available can’t cope with the fuels contamination levels.

That is why iCerMax™ designed a range of filters with the main objective of functionality in the most demanding environments from the onset and delivering dirt holding capacity efficiency to provide sustainable iSo-levels on particle and even remove not just free water but suspended water, even from the worst diesel (i.e. Nigerian fuel). Modular base for ease of installation and multi-functional, adaptable to various cleanliness levels, volumes and flow rates.

iSo-SpecSure™ -Diesel Particle Filter -is advanced in that it addresses the various fundamentals of superior filtration, by utilizing superior components:

- Multiple combinations of various different micron rated filtration mediums – depth Synthetic polyesters, advanced multi pleated papers and multi layers of depth synthetics.
- Multiple Layers of each filtration medium ensuring reliable complex structures of depth filtration.
- Multiple internal support structures
- Three cartridge options in iCerMax™ to ensure iSo-levels are obtained and maintained – target iSo levels 12/9/6

The factors combine to give an output of sustainable cleanliness levels, whilst ensuring structural integrity of the filtration medium and attaining a heightened dirt holding capacity. The impact on flow resistance is negligible and the unit operates at differential pressure levels, whilst remaining a viable cost effective option as it uses changeable cartridges, which are the extent of the maintenance required. Due to the heightened capacity of the unit it allows for the prolonged extension of the maintenance intervals, which too boosts the environmentally friendly aspect of the system as well the cost effectiveness.

iAquaMax™ - Diesel suspended Water Filter -The next step in the process is the surface separation coalescer, which uses replaceable cartridges made from a medium that allows free and especially suspended water to separate on its surface. Paper based medium seems to be the market standard, which is where **iAquaMax™** differentiates itself as its use a permanent resin coated stainless steel screen medium, which is not subject to the draw backs of paper separation. This will remove free water as well as being highly effective for the removal of suspended water and suspended water mixtures such as amber fuels (orange diesel- man made blend to keep water in suspension). This stage of the process is ideal for not only free water removal but removal of pseudo-diesel combination, especially in low sulphur diesels as well as bio-diesel blends, which seems to render paper media, ineffective.

Contact your nearest iCerMax™ dealer for product information: www.iCerMax.com